Resilient Community Partnership

City of New Castle • Delaware Coastal Programs

The Delaware Coastal Programs and the Resilient Community Partnership

Many communities throughout Delaware are threatened by inland flooding, coastal storms, sea level rise, and changing climates. To help address these challenges, the Delaware Coastal Programs (DCP) initiated the Resilient Community Partnership, an annual program that leverages federal funding provided by the National Oceanic and Atmospheric Administration (NOAA) to help Delaware communities improve their planning and preparation capabilities for responding to coastal hazards.

This iteration of the partnership will be with the Town of New Castle. The DCP will provide direct staffing, technical support, public outreach and training necessary to support the community's efforts through the stages of vulnerability assessment, planning and implementation of adaptation and mitigation practices.

Delaware Coastal Programs improves local capacity to conserve and wisely manage coastal resources and supports the integration of coastal management principles through local planning and implementation activities.

For more information about the Resilient Community Partnership, contact Danielle Swallow, DCP at: danielle.swallow@state.de.us

http://de.gov/coastal

Working Together for a Safe and Sustainable Community in the City of New Castle

Starting in summer 2017, the Delaware Department of Natural Resources and Environmental Control's Delaware Coastal Programs (DCP) office began partnering with the Town of New Castle to carry out a comprehensive assessment of risks to the community from coastal storms, sea level rise and extreme tides. The assessment is being performed by AECOM, and will inform the project's development of adaptation and mitigation measures to enhance the City's resiliency, or ability to withstand and bounce back from natural hazards. Public participation will be extremely important to this effort. Through public engagement in several workshops and taskforce meetings, residents and stakeholders will have the opportunity to contribute input and brainstorm strategies for addressing these risks. The work in this partnership will also be promoted through information sharing across the state and region so that other municipalities and communities may benefit.

Photo credit: AECOM

Preparing for Hazards Today - Planning for Risks Tomorrow

The City of New Castle, like other low-lying Delaware communities, is vulnerable to natural hazards from multiple sources. New Castle is particularly at risk due to its location along the Delaware River, which makes it susceptible to stream and tributary flooding, storm surge, and extreme tides, and combinations of these factors. A significant portion of the City is in the coastal floodplain and within an area that is predicted to be impacted by sea level rise.

MOVING TOWARDS RESILIENCE

Flooding along Rt. 9 and Ferry Cutoff during Hurricane Irene August 27, 2011

CREATING A PREPARED AND RESILIENT COMMUNITY

CITY OF NEW CASTLE'S UNIQUE FEATURES

There are four earthen dikes within and near the City (Buttonwood Dike, Broad Dike, Gambacorta Marsh Dike, and Army Creek Dike), which were first built in the late 1600s by the original City founders to protect land from the Delaware River. The dikes are still in place, and remain vital to protecting the well being of the community and some of the City's historic buildings and structures. Though extensive maintenance and repair (vegetation removal, placement of rip-rap, leveling, etc.) was recently completed at each dike, their tops are at approximate elevation of 8.5 feet, which is below the 100-year flood elevation, and below recommended elevations given considerations of future sea level rise scenarios that will affect the river level. Dikes also require maintenance in order to remain viable, which includes tasks such as tree and brush removal, animal burrow removal, and repairs to damaged areas to prevent further erosion and bank caving. The City also has tide gates that help drain areas behind the dikes, and large areas of marsh which can act as sponges to soak in water that need to be considered in the City's flood mitigation strategy.

IMPACTS OF COASTAL STORMS AND SEA LEVEL RISE

The threat of dike failure or overtopping continues with the added recognition that coastal storms are becoming more frequent and more intense due to warming ocean temperatures as a result of climate change. Climate change is also expected to alter precipitation rates and accelerate the rate of sea level rise as well, which will expand storm surge and high tide inundation areas, and increase instances of sunny day nuisance flooding.

For more information about the Resilient Community Partnership, please visit: http://de.gov/ncrcp

HOW YOU CAN HELP

Attend the Resilient Community Open House and Public Workshop to Share Your Insights and Comments

On Thursday, September 7, 2017 the Delaware Coastal Programs and the City of New Castle will sponsor the first public workshop of this project. City residents and stakeholders are invited to the New Castle Elementary School for an Open House workshop from 5:00 PM—7:30 PM to hear about the project and provide direct input into the process.

Can't make the event?

Visit http://de.gov/ncrcp to see project information, workshop displays, and comment forms. Or send your thoughts to: DNREC_DCP_PublicComment@state.de.us

PROJECT FIRST STEPS

- **Vulnerability Assessment to Characterize Current Hazards and Future Risk**

AECOM will map the City's vulnerabilities to natural hazards and climate change. The maps will overlay floodplain and sea level rise inundation areas with the City's socio-economic, facility and infrastructure, and natural resource information. Current mitigation and adaptation measures already completed by the City will be inventoried, and the level of risk to City assets and resources will be evaluated.

- **Formation of the New Castle Preparedness Taskforce**

The City recently established a Taskforce whose focus is on flood preparedness and resiliency. The group will serve as a resource for understanding how hazards might impact communities, vet the findings of the vulnerability assessment, assist with public workshops, and provide guidance on the development and prioritization of adaptation options.